

Table 39. Light-Duty Vehicle Sales by Technology Type
(Thousands)

West North Central	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
New Car Sales 1/													
Conventional Vehicles													
Gasoline ICE Vehicles	537.0	510.3	499.1	487.3	493.9	496.9	489.6	485.2	476.7	466.7	461.8	455.7	453.5
TDI Diesel ICE	0.5	0.4	0.5	1.0	1.0	1.0	1.3	1.3	1.3	1.5	1.5	1.5	1.5
Total Conventional	537.4	510.7	499.6	488.2	494.9	497.8	490.8	486.4	477.9	468.2	463.3	457.2	455.0
Alternative-Fuel Vehicles													
Methanol-Flex Fuel ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Methanol ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ethanol-Flex Fuel ICE	25.7	24.1	23.6	22.3	22.9	23.0	28.4	28.2	27.6	32.2	31.9	31.6	31.5
Ethanol ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Electric Vehicle	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Electric-Diesel Hybrid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.9	3.3	3.5
Electric-Gasoline Hybrid	0.9	1.3	2.6	15.1	15.9	16.8	17.6	18.2	22.9	22.5	26.7	26.4	27.1
CNG ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG Bi-fuel	0.8	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7
LPG ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG Bi-fuel	3.0	2.8	2.7	2.7	2.7	2.6	2.6	2.5	2.4	2.3	2.3	2.3	2.3
Fuel Cell Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Alternatives	30.6	29.1	29.8	41.0	42.5	43.5	49.5	49.8	53.8	59.8	63.7	64.6	65.1
Percent Alternative Car Sales	5.39	5.40	5.63	7.74	7.90	8.03	9.16	9.29	10.12	11.32	12.09	12.38	12.53
Total New Car Sales	568.1	539.8	529.4	529.2	537.4	541.3	540.3	536.3	531.7	528.0	527.0	521.7	520.1
New Light Truck Sales 2/													
Conventional Vehicles													
Gasoline ICE Vehicles	460.0	470.7	451.6	458.6	460.6	470.5	458.0	460.9	463.2	463.4	470.1	474.6	481.8
TDI Diesel ICE	21.6	19.9	22.4	35.8	36.0	35.8	36.0	36.4	37.1	43.2	43.4	43.9	45.5
Total Conventional	481.6	490.6	474.0	494.4	496.6	506.3	494.1	497.3	500.3	506.6	513.5	518.5	527.3
Alternative-Fuel Vehicles													
Methanol-Flex Fuel ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Methanol ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ethanol-Flex Fuel ICE	22.4	23.1	22.5	23.9	25.9	26.4	44.8	45.1	45.3	45.4	46.2	46.8	47.7
Ethanol ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electric Vehicle	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3
Electric-Diesel Hybrid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electric-Gasoline Hybrid	0.0	0.0	0.0	11.0	20.7	21.9	21.8	22.5	23.2	23.9	24.8	25.7	26.8
CNG ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CNG Bi-fuel	2.0	2.1	2.0	2.1	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.4	2.4
LPG ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG Bi-fuel	6.7	6.9	6.6	7.1	7.3	7.4	7.5	7.5	7.6	7.7	7.8	7.9	8.0
Fuel Cell Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Alternatives	31.4	32.2	31.4	44.3	56.2	58.2	76.6	77.6	78.6	79.5	81.4	83.0	85.2
Percent Alternative Light Truck Sales	6.12	6.16	6.21	8.23	10.17	10.32	13.42	13.50	13.58	13.56	13.69	13.80	13.91
Total New Truck Sales	513.0	522.9	505.4	538.7	552.8	564.5	570.6	574.9	578.9	586.1	594.9	601.5	612.5

Table 39. Light-Duty Vehicle Sales by Technology Type
(Thousands)
West North Central

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Percent Total Alternative Sales	5.74	5.77	5.91	7.99	9.05	9.20	11.35	11.47	11.92	12.50	12.94	13.14	13.27
EPACT Legislative Alternative Sales	17.45	17.36	16.75	17.47	17.79	18.01	18.05	18.03	18.00	18.06	18.27	18.40	18.66
ZEVP Legislative Alternative Sales	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Vehicles Sales	1081.1	1062.7	1034.8	1067.9	1090.2	1105.8	1110.9	1111.2	1110.7	1114.1	1121.9	1123.3	1132.6

Table 39. Light-Duty Vehicle Sales by Technology Type
(Thousands)

West North Central	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002- 2025
New Car Sales 1/													
Conventional Vehicles													
Gasoline ICE Vehicles	448.9	445.4	446.7	450.0	452.9	453.9	453.9	448.9	447.3	447.2	447.9	448.8	-0.6%
TDI Diesel ICE	1.5	1.6	1.6	1.7	1.7	1.8	1.8	1.9	1.9	2.0	2.1	2.2	7.8%
Total Conventional	450.5	447.0	448.3	451.7	454.6	455.6	455.7	450.8	449.2	449.2	450.0	451.0	-0.5%
Alternative-Fuel Vehicles													
Methanol-Flex Fuel ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0%
Methanol ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Ethanol-Flex Fuel ICE	31.1	30.8	30.8	31.0	31.1	31.1	31.0	30.5	30.3	30.3	30.3	30.3	1.0%
Ethanol ICE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	3.6%
Electric Vehicle	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-1.0%
Electric-Diesel Hybrid	4.3	4.4	4.4	4.5	4.5	4.5	4.5	4.5	4.5	4.4	4.5	4.5	N/A
Electric-Gasoline Hybrid	27.2	27.7	27.8	28.1	28.4	28.5	28.5	28.1	28.0	27.9	28.0	28.0	14.3%
CNG ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.8%
CNG Bi-fuel	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	-0.3%
LPG ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
LPG Bi-fuel	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	-0.9%
Fuel Cell Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Fuel Cell Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Fuel Cell Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Total Alternatives	65.8	66.0	66.2	66.8	67.2	67.3	67.2	66.3	65.9	65.8	65.9	66.0	3.6%
Percent Alternative Car Sales	12.74	12.87	12.88	12.88	12.88	12.87	12.86	12.82	12.80	12.78	12.77	12.76	3.8%
Total New Car Sales	516.2	513.0	514.5	518.5	521.8	522.9	523.0	517.1	515.1	515.0	515.9	517.0	-0.2%
New Light Truck Sales 2/													
Conventional Vehicles													
Gasoline ICE Vehicles	485.7	489.4	498.2	509.0	520.3	528.7	536.0	537.8	543.9	553.0	562.8	574.7	0.9%
TDI Diesel ICE	45.6	46.2	47.2	48.6	50.0	51.4	52.7	53.2	53.8	54.5	56.4	58.0	4.8%
Total Conventional	531.3	535.6	545.4	557.5	570.3	580.1	588.7	591.0	597.7	607.5	619.2	632.8	1.1%
Alternative-Fuel Vehicles													
Methanol-Flex Fuel ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5%
Methanol ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Ethanol-Flex Fuel ICE	48.2	48.6	49.7	51.1	52.6	53.8	54.8	55.1	55.9	57.3	58.7	60.3	4.3%
Ethanol ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Electric Vehicle	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.5%
Electric-Diesel Hybrid	0.0	1.5	1.5	2.2	2.3	2.4	4.1	4.2	4.2	4.3	4.4	4.5	N/A
Electric-Gasoline Hybrid	27.6	27.6	28.2	28.5	29.2	29.7	29.3	29.4	29.7	30.2	30.8	31.4	N/A
CNG ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1%
CNG Bi-fuel	2.4	2.5	2.5	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.9	2.9	1.5%
LPG ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6%
LPG Bi-fuel	8.1	8.2	8.3	8.5	8.7	8.9	9.0	9.1	9.2	9.3	9.5	9.7	1.5%
Fuel Cell Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Fuel Cell Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Fuel Cell Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Total Alternatives	86.6	88.6	90.5	93.2	95.8	97.7	100.3	100.7	102.1	104.2	106.5	109.2	5.4%
Percent Alternative Light Truck Sales	14.02	14.20	14.23	14.32	14.38	14.42	14.55	14.56	14.59	14.64	14.68	14.71	3.9%
Total New Truck Sales	618.0	624.2	635.9	650.8	666.0	677.9	689.0	691.7	699.8	711.7	725.7	741.9	1.5%

Table 39. Light-Duty Vehicle Sales by Technology Type
(Thousands)

West North Central	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002- 2025
Percent Total Alternative Sales	13.44	13.60	13.62	13.68	13.72	13.74	13.82	13.82	13.83	13.86	13.89	13.91	3.9%
EPACT Legislative Alternative Sales	18.77	18.90	19.20	19.59	19.99	20.29	20.56	20.59	20.77	21.07	21.42	21.83	1.0%
ZEVP Legislative Alternative Sales	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A
Total Vehicles Sales	1134.2	1137.2	1150.4	1169.2	1187.9	1200.8	1211.9	1208.8	1214.9	1226.7	1241.6	1258.9	0.7%

Table 39. Light-Duty Vehicle Sales by Technology Type
(Thousands)
West North Central

1/ Includes personal and fleet light-duty cars.

2/ Includes personal and fleet light-duty trucks.

ICE = Internal combustion engine.

EPACT = Energy Policy Act of 1992.

ZEVP = Zero emission vehicles from the low emission vehicle program.

N/A = Not applicable.

Sources: 2002 derived using: California Air Resources Board (CARB), "Proposed Regulations for Low-Emission Vehicles and Clean Fuels, Staff Report"; CARB, "Proposed Amendments to California Exhaust and Evaporative Emission Standards and Test Procedures for Passenger, Light-Duty Trucks and Medium-Duty Vehicles - LEVII and Proposed Amendments to California Motor Vehicle Certification: Assembly-Line and In-Use Test Requirements - CAP 2000," (El Monte, CA, September 1998); Energy Information Administration (EIA), Describing Current and Potential Markets for Alternative-Fuel Vehicles, DOE/EIA-0604(96) (Washington, DC, March 1996); EIA, Alternatives to Traditional Transportation Fuels 1998, http://www.eia.doe.gov/cneaf/alt_trans98/table1.html; and EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e. Projections: EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.